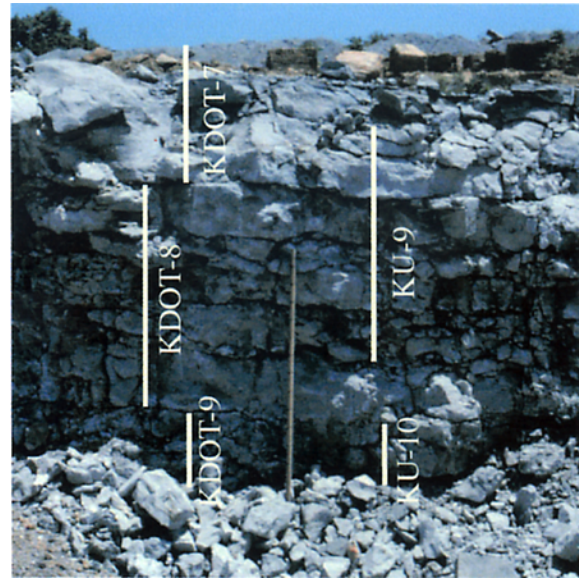




(A)



(B)



(C)

Figure A1.3: Outcrop photos showing exposures measured in the Hunt-Midwest Sunflower quarry in DeSoto Kansas, Johnson County. The staff in each photo is 1.5 meters for scale. (A) Lower Farley outcrop with locations from which aggregate samples were collected for physical testing. In the case of the KDOT samples, this indicates the stratigraphic level from which the samples were taken but not the exact location. (B) Upper Farley outcrop with aggregate sampling locations indicated. (C) Middle Farley showing medium-scale cross-bedding.

Rock Unit(s): Lower Farley

Thickness	Lithology & Weathering Profile	Fossils & Grains	Sed. Struct & Diag. Feat.	Rock Name (Dunham)	Cement	Color	Sample No.	Photo No.	Additional Remarks
100m				Skeletal Wackestone	Coarse grain is not ab. Fills occasional voids + replace fossils ~ 15% of rock is carb. sp.		KU-8		<p>Fusulinids common</p> <p>Appears as one massive bed ~200cm thick.</p> <p>Is broken by concentrated shale partings but these are not bedding planes.</p> <p>Thin shale seams are slightly darker up a down.</p> <p>Clay occurs in concen- t. seams up to 8-10cm thick + in wavy strings throughout the layer.</p> <p>Deeper only ~15-20% contains clay.</p>
				Foss. Intermed Siltstone					<p>Base has no disconformity and is. Gradational contact</p> <p>Fossiliferous Shale</p>

Date _____

Location Swiftnose Quarry (HMA) Dredge

Page 1 of 5

1:10 cm

Rock Unit(s): Lower Farley

Thickness	Lithology & Weathering Profile	Fossils & Grains	Sed. Struct & Diag. Feat.	Rock Name (Dunham)	Cement	Color	Sample No.	Photo No.	Additional Remarks
17cm+		20 # 1	AB	Phylloids Algal Wackestone	Ab. fine spar from phylloids. Coarser spar fills fractures. (~20%)				Very little d. fine clay (~5%)
15cm									
8cm		20 # 2	AB	Phylloids Algal Wackestone	Spar in fractures replacing bryozoan phylloids (20-25%) Xst 5-20 is 5-10mm				Shaly same at bedding plane. Each bed has a small amount of clay diffusing into surroundings @ bedding plane. ~10-15% has diffuse clay in it.
22cm									
36cm									
12cm									
35cm		20 # 3	AB	Silt Scum	Spar more abundant due to more fossils & phylloids also (10-25%) Size is 5-10mm				Largely continuous (variable thickness). Relatively clean of clay except @ bedding planes. The few cm to either side ~5% contains clay.
33cm				Phylloids Algal Wackestone					
30cm									
19cm+				as below					cont. from p 1

Date _____

Location Sunflower, DeSoto, KS

Page 2 of 5

Rock Unit(s): Lower - Middle Faley

Thickness	Lithology & Weathering Profile	Fossils & Grains	Sed. Struct & Diag. Feat.	Rock Name (Dunham)	Cement	Color	Sample No.	Photo No.	Additional Remarks
3cm				Siltstone					Middle Faley shale
15cm				X-Bedded Skeletal Pack Graptolite	No coarse cement Fine grain Fills most subparallel space (~25-45%)				Large scale x-bedding Shale below probably is siltstone. Platychelonicum Sandy-silty (fz 2 sand)
15cm				Pebbled Skeletal Packstone	little to no coarse grain (~5%) fine grain (~50%)		H17		Densely packed; fine grain (~2mm) shale bedding plane
25cm				Pebbled Skeletal Packstone	Fine grain (≤ 1mm) is abundant (~40-60%) Grapt. fossil fragments		H16 KDOT-10		No mud or clay present Fine fills all subparallel fine grain. Coarse grained than bed above. Thicker bedded than below.
51cm				Phyllost. Algal Wackestone	Spine fills fractures & replace fossils & phyllo. (≤ 4mm) (~20-25%)		H15 H14		Mottled appearance Very little clay. - only thin stringers @ bedding plane (≤ 5%)
11cm				Phyl. Algal Wackestone see below	More coarse grain (1-5mm) ~25%		H14		Very little clay (≤ 5%) see from pg 2

Date _____

Location Southwest De Soto Co

Page 3 of 5

Rock Unit(s): Upper Farley

Thickness	Lithology & Weathering Profile	Fossils & Grains	Sed. Struct. & Diag. Feat.	Rock Name (Dunham)	Cement	Color	Sample No.	Photo No.	Additional Remarks
38cm				Phylloid Aglal Wackestone	Coarse spar intercrystalline. Fills vugs & replaces fossils in vugs. Faint in large (1 cm ²) & still in some fossils (~ 25%) Fine spar also present (~ 15%)		S-3 A-3 A-6 S-2 K-1 K-2 K-3 K-4 K-5 K-6 K-7 K-8 K-9 K-10 K-11 K-12 K-13 K-14 K-15 K-16 K-17 K-18 K-19 K-20 K-21 K-22 K-23 K-24 K-25 K-26 K-27 K-28 K-29 K-30 K-31 K-32 K-33 K-34 K-35 K-36 K-37 K-38 K-39 K-40 K-41 K-42 K-43 K-44 K-45 K-46 K-47 K-48 K-49 K-50 K-51 K-52 K-53 K-54 K-55 K-56 K-57 K-58 K-59 K-60 K-61 K-62 K-63 K-64 K-65 K-66 K-67 K-68 K-69 K-70 K-71 K-72 K-73 K-74 K-75 K-76 K-77 K-78 K-79 K-80 K-81 K-82 K-83 K-84 K-85 K-86 K-87 K-88 K-89 K-90 K-91 K-92 K-93 K-94 K-95 K-96 K-97 K-98 K-99 K-100 K-101 K-102 K-103 K-104 K-105 K-106 K-107 K-108 K-109 K-110 K-111 K-112 K-113 K-114 K-115 K-116 K-117 K-118 K-119 K-120 K-121 K-122 K-123 K-124 K-125 K-126 K-127 K-128 K-129 K-130 K-131 K-132 K-133 K-134 K-135 K-136 K-137 K-138 K-139 K-140 K-141 K-142 K-143 K-144 K-145 K-146 K-147 K-148 K-149 K-150 K-151 K-152 K-153 K-154 K-155 K-156 K-157 K-158 K-159 K-160 K-161 K-162 K-163 K-164 K-165 K-166 K-167 K-168 K-169 K-170 K-171 K-172 K-173 K-174 K-175 K-176 K-177 K-178 K-179 K-180 K-181 K-182 K-183 K-184 K-185 K-186 K-187 K-188 K-189 K-190 K-191 K-192 K-193 K-194 K-195 K-196 K-197 K-198 K-199 K-200 K-201 K-202 K-203 K-204 K-205 K-206 K-207 K-208 K-209 K-210 K-211 K-212 K-213 K-214 K-215 K-216 K-217 K-218 K-219 K-220 K-221 K-222 K-223 K-224 K-225 K-226 K-227 K-228 K-229 K-230 K-231 K-232 K-233 K-234 K-235 K-236 K-237 K-238 K-239 K-240 K-241 K-242 K-243 K-244 K-245 K-246 K-247 K-248 K-249 K-250 K-251 K-252 K-253 K-254 K-255 K-256 K-257 K-258 K-259 K-260 K-261 K-262 K-263 K-264 K-265 K-266 K-267 K-268 K-269 K-270 K-271 K-272 K-273 K-274 K-275 K-276 K-277 K-278 K-279 K-280 K-281 K-282 K-283 K-284 K-285 K-286 K-287 K-288 K-289 K-290 K-291 K-292 K-293 K-294 K-295 K-296 K-297 K-298 K-299 K-300 K-301 K-302 K-303 K-304 K-305 K-306 K-307 K-308 K-309 K-310 K-311 K-312 K-313 K-314 K-315 K-316 K-317 K-318 K-319 K-320 K-321 K-322 K-323 K-324 K-325 K-326 K-327 K-328 K-329 K-330 K-331 K-332 K-333 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Date _____

Location Swallow Quail

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Locality LQ: Quarry section. Measured in the inactive quarry on Loring Road west of Bonner Springs in Leavenworth County. The Farley Limestone is accessible in the upper portion of the quarry. Follow quarry roads up around to the northeast. Argentine Limestone is exposed at the level of the quarry pond and the Island Creek Shale and Farley Limestone is accessible by climbing. The upper portions of the Farley were only reachable with a ladder and some was out of reach completely. This section contains aggregate samples KDOT 14-17

